REMARKS

Claims 1-26 are pending in this application. The specification and claims 1-26 are amended. The specification is amended to correct minor typographical errors therein. Claims 1-26 are amended to correct typographical errors therein and to conform to U.S. claim format, for example, by eliminating figure reference numbers. Claims 1, 14, 17, 18, 20-26 are amended to address a claim rejection under 35 USC §112.

Reconsideration of the application is respectfully requested.

I.   Allowable Subject Matter

Applicant thanks the Examiner for the indication that claims 12, 14, 17, 18, 21, 22 and 24-26 would be allowable if rewritten to overcome the rejections under 35 U.S.C. §112, second paragraph and to include all of the limitations of the base claim and any intervening claims.

II.   Rejection Under 35 USC §112

Claims 1, 14, 17, 18, 20-26 were rejected under 35 USC §112, second paragraph, as allegedly being indefinite. This rejection is respectfully traversed.

Claims 1, 14, 17, 18 and 20-26 are amended to address the rejections as set forth on pages 2-4 of the Office Action. With respect to claims 20-24, Applicant submits that the contact matrix set forth in those claims is the same contact matrix as the one previously claimed. With respect to claims 23-25, Applicant submits that the input element is the same input element as the one previously claimed.

Thus, Applicant respectfully requests withdrawal of the rejections under 35 USC 112, second paragraph.

III. Rejection Under 35 U.S.C. §102

Claims 1, 5, 9 and 15 were rejected under 35 U.S.C. §102(b) as allegedly being anticipated by U.S. Patent No. 6,429,792 to Burton. The rejection is respectfully traversed.

The Patent Office alleges that Burton teaches each and every feature recited in claims 1, 5, 9 and 15. Applicant respectfully disagrees with this allegation.

Burton fails to teach or suggest a control module working on a basis of pattern recognition that translates the electrical, digital signals supplied from the switch element as required by claim 1.

Burton only discloses a "digital signal generator". Nowhere does Burton teach or suggest any module or method for analyzing digital output signals, let alone a module or method for analyzing digital output signals on the basis of pattern recognition.

The present invention requires that motions subjected onto the input element are converted into electrical, digital signals by a switch element and that said electrical, digital signals are subsequently translated by a control module working on a basis of pattern recognition. While Burton's invention does generate raw digital signals, those digital signals are not processed or associated with physical positions of the control element. Burton fails to teach or suggest any solution for that task nor mentions its necessity. At the time the invention was made, translating the electrical, digital signals with a control module on the basis of pattern recognition would not have been obvious to a person having ordinary skill in the art.

Because the features of independent claim 1 are neither taught nor suggested by Burton, Burton cannot anticipate, and would not have rendered obvious, the features specifically defined

in claim 1 and its dependent claims.

For at least these reasons, claims 1, 5, 9 and 15 are patentably distinct from and/or non-obvious in view of Burton. Reconsideration and withdrawal of the rejections of the claims under 35 U.S.C. §102(b) are respectfully requested.

IV.   Rejections Under 35 U.S.C. §103

A.   Burton in view of DeVolpi

Claims 2, 3, 6-8, 10, 11, 13, 19, 20 and 23 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Burton in view of U.S. Patent No. 5,949,325 to DeVolpi. The rejection is respectfully traversed.

DeVolpi does not remedy the deficiencies of Burton as described above with respect to claim 1, from which claims 2, 3, 6-8, 10, 11, 13, 19, 20 and 23 directly or indirectly depend.

The Patent Office acknowledges that Burton does not teach an input element exhibiting a calotte on its underside with a contact coating on the convex surface of the calotte opposite to the underside of the input element and that the input element is a joystick with a contact matrix that extends in two dimensions (see page 5 of the Office Action). The Patent Office introduces DeVolpi as allegedly remedying this deficiency of Burton. The Patent Office alleges that it would have been obvious to apply the teachings of DeVolpi to Burton to achieve the presently claimed invention. Applicant respectfully disagrees with these allegations.

The Patent Office alleges that, in view of DeVolpi, it would be obvious to a person with ordinary skill in the art to extend the invention disclosed by Burton to a two dimensional contact matrix. Applicant disagrees that such a combination would disclose the invention of the present

claims.

DeVolpi discloses an analog joystick made of conductive rubber that contacts one or many conductive paths. DeVolpi fails to describe any module or method for analyzing digital output signals, let alone a module or method for analyzing digital output signals on the basis of pattern recognition as required by the present claims.

The Patent Office references the figures of DeVolpi as allegedly teaching an arrangement of contacts which appear to be similar to the contact matrix disclosed in the present application. However, the most detailed figure, Fig. 13, of DeVolpi describes conductive path arrangements to derive an analog sum signal. These differ from a scanning matrix and are not suitable for a digital signal evaluation.

This is confirmed by the fact that a scanning unit or a pattern recognition unit are not only "not shown" in the figures of DeVolpi, as the Patent Office acknowledges, but are also not even mentioned in the application. The same applies to a scanning and a pattern recognition algorithm which are also lacking in the disclosure of DeVolpi. Because DeVolpi's teachings do not refer to digital but analog output signals, there is no need to process digital signals.

As discussed with respect to claim 1, Burton does not teach or suggest a control module working on a basis of pattern recognition that translates the electrical, digital signals supplied from the switch element as required by claim 1. DeVolpi fails to remedy the deficiencies of Burton because DeVolpi does not teach or suggest a control module, working on a basis of pattern recognition, that translates the electrical, digital signals.

Thus, neither Burton nor DeVolpi, taken singly or in combination, teaches or suggests the

control module as specifically defined in claim 1.

Because these features of independent claim 1 are not taught or suggested by Burton and DeVolpi, taken singly or in combination, these references would not have rendered the features of claim 1 obvious to one of ordinary skill in the art.

For at least these reasons, claims 2, 3, 6-8, 10, 11, 13, 19, 20 and 23 are patentable over Burton and DeVolpi. Thus, withdrawal of the rejection under 35 U.S.C. §103(a) is respectfully requested.

B.   Burton in view of May et al.

Claim 16 was rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Burton in view of U.S. Patent No. 5,271,834 to May et al. (hereinafter "May"). The rejection is respectfully traversed.

May does not remedy the deficiencies of Burton as described above with respect to claim 1, from which claim 16 directly depends.

The Patent Office acknowledges that Burton does not teach the base plate being equipped with a software controlled electro magnet, delivering a tactile feedback to the actuation status of the input element (see page 7 of the Office Action). The Patent Office introduces May as allegedly remedying this deficiency of Burton. The Patent Office alleges that it would have been obvious to apply the teachings of May to Burton to achieve the presently claimed invention. Applicant respectfully disagrees with these allegations.

As discussed with respect to claim 1, Burton does not teach or suggest a control module working on a basis of pattern recognition that translates the electrical, digital signals supplied

from the switch element as required by claim 1. May fails to remedy the deficiencies of Burton because May does not teach or suggest a control module, working on a basis of pattern recognition, that translates the electrical, digital signals.

Thus, neither Burton nor May, taken singly or in combination, teaches or suggests the control module as specifically defined in claim 1.

Because these features of independent claim 1 are not taught or suggested by Burton and May, taken singly or in combination, these references would not have rendered the features of claim 1 obvious to one of ordinary skill in the art.

For at least these reasons, claim 16 are patentable over Burton and May. Thus, withdrawal of the rejection under 35 U.S.C. §103(a) is respectfully requested.

V.   Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-26 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Early and favorable action is earnestly solicited.

CONDITIONAL PETITION FOR EXTENSION OF TIME

If entry and consideration of the amendments above requires an extension of time, Applicant respectfully requests that this be considered a petition therefor. The Commissioner is

authorized to charge any fee(s) due in this connection to Deposit Account No. 14-1263.

ADDITIONAL FEE

Please charge any insufficiency of fees, or credit any excess, to Deposit Account No. 14-1263.

Respectfully submitted,

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